

FIG. 1MTSP1

MNRIVQFGVSAVAAAAIGIGAGSGIAAAFDGEDEVTPGDADRARAAAVQAVPGGTAGEVE
TETGEGAAAYGVLVTRPDGTRVEVHLDRDFRVLDTPEADGDGG*

MTSP2

MRLSLTALSAGVGAVAMSLTVGAGVASADPVDVAVINTTCNYGQVVAALNATDPGAAAQFN
ASPVAQSYLRNFLAAPPQPORAAMAAQLQAVPGAAQYIGLVESVAGSCNNY*

MTSP3

MFTGIA SHAGALGAALVVLIGAAILHDGPAAADPNQDDRFLALLEKKEIPAVANVPRVID
AAHKVCRKLDGGMPVNDIVDGLRNDAYNIDPVMRLYPVRLTTTMTRFISA AVEIYCPNHH
SKMAFAMANFEPGSNEPTHRVAASTRSVNSGSDLRASVSDMTIMSPGWREPTGAMLASV
LGAVRAGDPLIPNPPPIPVPPPAQTLIPPPPIVAPPPRPAPPQQPPPPPEVEPPAGV
PQSGGAAGSGGAGSGGGGGGDGPVEPSPARPMPPGFIRLAP*

MTSP4

MTRLIPGCTLVGLMLTLLPAP TSAAGSNTATTLPVDEVTOLEHTFLDCHPNGSCDFVA
GANLRTPDGPTGFPPLWARQTTEIRSTNRLAYLDAHATSQFERVMKAGGSDVITTVYFG
EGPPDKYQTTGVIDSTNWS TGQPMTDVNVIVCTHMQVVYPGVNLTSPSTCAQANFS*

MTSP5

MVLR SRKSTLGVVCLALVLGGPLNGCSSSASHRGPLNAMGSPAIPSTAQEIPNPLRGQY
EDLMEPLFPQGNPAQQRYPPWPASYDASLRVSWRQLQPTDPRTLPPDAPDDRKYDFSVID
NALTRLADRGMLTLRVYAYSSCCKASYPDGTNIAIPDWERAIASNTSYPGPATDPSTG
VVQVVPNFNDSTYLNDFQAQLLAALGRRYDGDERSVFEFSGYGDFSENHVAYLRDTLGAP
GPGPDES VATLGYYSQFRDQNTTASIKQLIAANVSAFPHTQLVTSPANPEIVRELFAD E
VTNKLAAPVGVRSDCLGVDAPLPWAESSTSHYVQTKDPVVAALRQRLATAPVIT EWC EL
PTGSSPRAYYEKGLRDVIRYHVSMTSSVNFDPQTATSPMDPALYL VWAQANAAAGYRYSV
EAQPGSQALAGKVATISVTWTNYGAAAATEKWVPGYRLVDSTGQVVRTLPAAVDLKTLVS
DQGRDRSSDQPTPASVAETVRVDLSGLPAGHYTLRAAIDWQHKPNGSHVVNYPPMLLSR
DGRDDSGFYPPVATLDIPRDAQTAVNAS*

MTSP6

MSRLLALLCAAVCTGCVAVVLAPVSLAVVNPWFAN SVGNATQVVS VVGTTGGSTAKMDVYQ
RTAAGWQPLKTGITTHIGSAGMAPEAKSGYPATPMGVYSLDSAFGTAPNPGGGLPYTQVG
PNHWWSGDDNSPTFNSMQVCQKSQCPFSTADSENLOIPQYKHSVVMGVNKA KVPKGSAF
FFHTTDGGPTAGCVAID DATLVQIIRWLRPGAVIAIAK*

MTSP7

MIRELVTTAAITGAAIGGAPVAGADPQRYDGDVPGMNYDASLGAPCSSWERFI FGRGPSG
QAEACHFPFPNQPFP AETGYWVISYPLYGVQVQVGAPCPKPQAAAQSPDGLPMLCLGARGW
QPGWFTGAGFFPPEP*

FIG. 1 (continued)MTSP8

MGELRLVGGVLRVLVVVGAVFDVAVLNAGAASADGPVQLKSRLGDVCLDAPSGSWFSPLV
INPCNGTDFQRWNLTDDRQVESVAFPGECVNIGNALWARLQPCVNWISQHWTVPDGLVK
SDLDACLTVLGGPDPGTWVSTRWCDPNAPDQQWDSVP*

MTSP9

MPAMTARSVVLSVLLGAHPAWATASELIQLTADFGIKETTLRVALTRMVGAGDLVRSADG
YRLSDRLLARQRRQDEAMRPRTRAWHGNWHMLIVTSIGTDARTRAALRTCMHHKRFGE LR
EGVWMRPDNLDDLDES DVAARVRMLTARDEAPADLAGQLWDL SGWTEAGHRL LGDMAAAT
DMPGRFVVAAMVRHLLTDPMLPAELL PADWPGAGLRAAYHDFATAMAKRRDATQLLEVT
*

MTSP10

VPAGVGNASGSVLDMTSVRTVPSAVALVTFAGAALSGVI PAIARADPVGHQVITYTPTTTS
DLMANIRYMSADPPSMAAFNADSSKYMITLHTPIAGGQPLVYTATLANPSQWAIVTASGG
LRVNPEFHCEI VVDGQVVVSQDGGSGVQCSTRPW*

MTSP11

MTTSKIATAFKTATFALAAGAVALLASPADAAAGTMYGDPAAAAKYWRQQTYYDDCVLMS
AADVIGQVTGREPSERAI IKVAQSTPSVVHPGSIYTKPADA EHPNSGMGT SVADIPTLLA
HYGVDAVITDEDHATATGVATGMAALEQYLGSGHAVIVSINAEMIWGQPVEETDSAGNPR
SDHAVVVTGVDTENGIVHLNDSGTPTGRDEQIPMETFVEAWATSHDFMAVTT*

MTSP12

MGVIARVVGVAACGLSLAVLAAAPTAGAEPTGALPPMTSSSGSGPVI GDGDAALRQRI SQQ
LFSFGDPTVQEV DGS DAAQFI TAAA VADR DVASVFLPLQ RVLGCQ QNTAGSGAGFGARA
YRRTDGQWGGAMLV VAKSTVSDVDALKACVKSGWRKATAGTPTSMCNNGW TYPPFADTRR
GEEGYFVLLAGTASDFCSAPNANYRTTASSWPG*

MTSP13

MRLKPAPSPAAAFVAGLILAGWAGSVGLAGADPEPAPT PKTAIDSDGTYAVGIDIAPGT
YSSAGPVGDGTCYWKRMGNPDGALIDNALS KKPQVVTIEPTDKAFKTHGCQPWQNTGSEG
AAPAGVPGPEAGAQLQNQLGILNGLLGPTGGRVPQP*

MTSP14

MITNLRRRTAMAAAGLGAALGLGILLVPTVDAHLANGSMSEVMMSEIAGLPIPPIIHYGA
IAYAPSGASGKAHQRTPARAEQVALEKCGDKTKVVS RFTRCGAVAYNGSKYQGGTGLT
RRAAEDDAVNRLEGGRI VNWACN*

MTSP15

VTVLLDANVLIALVVAEHVHHDAAADWLMASDTGFATCPMTQGS LVRFLVRSQSAAAAR
DVVSAVQCTSRHEFWPDALS FAGVEVAGVVGHRQVTDAYLAQLARSHDGQLATLD SGLAH
LHGDVAVLIPTTT*

FIG. 1 (continued)MTSP16

VQRQSLMPQQT LAAGVFV GALLCGVVTAAVPPHARADV VAYLVNVTVRPGYNFANADAAL
SYGHGLCEKVS RGRPYAQIIADV KADFDT RDQYQASYLLSQAVNELCPALI WQLRNSAVD
NRRSG*

MTSP17

VRSYLLRIELADRP GSLGSLAVALG SVGADILSLD VVERGNGYAIDDLVVELPPGAMPDT
LITAAEALNGVRVDSVRPHTGLLEAHRELELLDHVAAAEGATARLQVLVNEAPRVLRVSW
CTVLRSSGGELHRLAGSPGAPETRANSAPWLP IERAAALDGGADWVPQAWRDMDTTMVAA
PLGDTHTAVVLGRPGPEFRPSEVARLGYLAGIVATMLR*

MTSP18

MPDGEQSQPPAQEDAEDDSRPDAEEAAAAEPKSSAGPMFSTYGIAS TLLGVLSVAAVVLG
AMIWSAHRDDSGERTYLTRVMLTAAEWTA VLINMNADNIDASLQRLHDGTVGQLNTDFDA
VVQPYRQVVEKL RTHSSGRIEAVAIDTVHRELD TQSGAARPVVTTKLPPFATR TDSVLLV
ATSVSEENAGAKPQTVHWNLRLDVSDVDGKLMISRLESIR*

MTSP19

MKMVKSLAAGLTAAAAIGAAAAGVTSIMAGGPVVYQMOPVVFGAPLPLDPASAPDVPTAA
QLTSLNLSLADPNVSFANKGSLVEGGIGGTEARIADHKLKKA AEHGDLP LSF SVTNIQPA
AAGSATADVSVSGPKLSSPVTQNVTFVNQGGWMLSRASAMELLQAAGN*

MTSP20

MNLRRHQTLTLRLLAASAGILSAAAFAPAQANPVDDAFIAALNNAGVNYGDPVDAKALG
QSVCPILAEPPGGSFNTAVASVVARAQGMSQDMAQTFTSIAISMYCPSVMADVASGNLPAL
PDMPLPGS*

MTSP21

MRVVSTLLSIPLMIGLAVPAHAGPSGDDAVFLASLERAGITYSHPDQAIASGKAVCALVE
SGESGLQVVNELRTRNPGFSMDGCCKFAAISAHVYCPHQITKTSVSAK*

MTSP22

MARTLALRASAGLVAGMAMAAITLAPGARAETGEQFP GDGVFLVGTDIAPGTYRTEGPSN
PLILVFGRVSELSTCSWSTHSAPEVSNENIVDTNTSMGPM SVVIPPTVAAFQTHNCKLWM
RIS*

MTSP23

MLSPLSPRIIAAFTTAVGAAAIGLAVATAGTAGANTKDEAFIAQMESIGVTFSSPQVATQ
QAQLVCKKLASGETGTEIAEEVLSQTNLTTKQAAYFVVDATKAYCPQYASQLT*

FIG. 1 (continued)MTSP24

MTTMITLRRRFAVAVAGVATAAATTVTTLAPAPANAADVGAIAYSNGNSWGRSWDYPTRA
AAEATAVKSCGYSDCKVLTSFTACGAVAANDRAYQGGVGPTLAAAMKDALTCLGGGYIDT
WACN*

MTSP25

MTPGLLTAGAGRPRDRCARIVCTVFIETAVVATMFVALLGLSTISSKADDIDWDAIAQC
ESGGNWAANTGNGLYGGLQISQATWDSNGGVGSPAAASPQQQIEVADNIMKTQGPAGWP
CSSCSQGDAPLGLSLTHILTLFLAAETGGCSGSRDD*

MTSP26

VQGAVAGLVFLAVLVIFAIIVVAKSVALIPQAEAAVIERLGRYSRTVSGQLTLLVPFIDR
VRARVDLRERVVSFPQPVITEDNLTNLNIDTVVYFQVTPQAAVYEISNYIVGVEQLTTT
TLRNVVGGMTLEQTLTSRDQINAQLRGVLDEATGRWGLRVARVELRSIDPPPSIQASMEK
QMKADREKRAMILTAEGTREAAIKQAEQKQQAQILAAEGAKQAAILAAEADRQSRMLRAQ
GERAAAYLQAQGOAKAIEKTFAAIKAGRPTPEMLAYQYLQTLPEMARGDANKVWVPSDF
NAALQGFTRLLGKPGEDGVFRFEPSPVEDQPKHAADGDDAEVAGWFSTDTDPSIARAVAT
AEAIAARKPVEGSLGTPPRLTQ*

MTSP27

LQTAHRRFAAAFAAVLLAVVCLPANTAAADDKLPLGGGAGIVVNGDTMCTLTITIGHDKNG
DLIGFTSAHCGGPGAQIAAEGAENAGPVGIMVAGNDGLDYAVIKFDPKVTPVAVFNGFA
INGIGPDPSFGQIACKQGRRTGNSCGVTWGPGESPGTLVMQVCGGPGDSDGAPVTVDNLLV
GMIHGAFSDNLPSCITKYIPLHTPAVVMSINADLADINAKNRPGAGFVPVPA*

MTSP28

MLMPEMDRRRMMMAGFGALAAALPAPTAWADPSRPAAPAGPTPAPAAPAAATGGLLFHD
EFDGPAGSVDPDSKWQVSNHRTPIKNPVGFDRPQFFGQYRDSRQNVFLDGNLNLVLRATR
EGNRYFGGLVHGLWRGGIGTTWEARIKFNCCLAPGMWPAWWSNDDPGRSGEIDLIEWYGN
GTWPSGTTVHANPDGTAFETCPIGVDDGGWHNWRVTWNPSGMYFWLDYADGIEPYFSVPAT
GIEDLNEPIREWPFNDPGYKVFPVLNLAVGGSGGGDPATGSYPQEMLVDWVRVF*

MTSP29

VHRRALKLPLLLAAGTVLGGAPRAAAEEPGRWSADRAHRWYQAHGWLVGANYITSNAIN
QLEMFQPGTYDPRRIDNELGLARFHGFNTVRVFLHDLWLAQDAPGFQTRLAQFVAIAARY
HIKPLFLVLFDSWDPLPRPGRQRAPRAGVHNSGWVQSPGAERLDDRRYASTLYNYVTGVL
GQFRNDDRVLGWDLWNEPDNPARVYRKVERKDKLERSVAELLPOVFRWARTVDPVQPLTSG
VWQGNWGDPRRSTISAIQLDNADVITFHSYAAPAEFEGRIAEALAPLQRPILCTEYLARS
QGSTVEGILPIAKRHNVGAFNWGLVAGKTQTYLPWDSWDHPYRAPPKVWFHDLHPNGRP
YRDGEVQTIRKLNGMPSQD*

MTSP30

VSTYGWRAYALPVLMLVLTTVVVYQTVTGTSTPRPAAQTVRDSIPAIGVVGTAIILDAPPRG
LAVFDANLPAGTLPDGGPFTEAGDKTWRVVPGTTPQVGQGTVKVFRYTVETIENGLDPTMY
GGDNAFAQMVDQTLTNPKGWTHNPQFAFVRIDSGKPDFRISLVSPPTTVRGCGYEFRLET
SCYNPSFGMDRQSRVFINERWVRGAVPFEGDVGSYRQYVINHEVGHAIGYLRHEPCDQ
QGGLAPVMMQQTFFSTSNDDAAKFDPDFVKADGKTCRFPWPYPPI*

FIG. 1 (continued)MTSP31

MRPYYIAIVGSGPSAFFAAASLLKAADTTEDLDMAVDMLEMLPTPWGLVRSVAPDHPKI
 KSISKQFEKTAEDPRFRFFGNVVVGEHVQPGELSERYDAVIYAVGAQSDRMLNIPGEDLP
 GSIAAVDFVGVWYNAHPHFEQVSPDLGSAVAVVIGNGNVALDVARILLTDPDVLARTDIAD
 HALESLRPRGIQEVVIVGRRGPLQAFTTLELRELADLDGVDVVIDPAELDGITDEDA
 VVKVCKQNIKVLRGYADREPRPGHRRMVFRFLTSPIEIKGKRKVERIVLGRNELVSDGSG
 RVAAKDTGEREELPAQLVVRVSVGYRGVPTPGLPFDDQSGTIPNVGGRINGSPNEYVVGWI
 KRGPTGVI GTNKKDAQDVTDTLIKNLGNAKEGAECKSFPEDHADQVADWLAARQPKLVTS
 AHWQVIDAFERAAGEPHGRPRVKLASLAELLRIGLG*

MTSP32

VTNPPWTVDVVVVGAGFAGLAAARELTRQGHEVLVFEGRDRVGGSLTGRVAGVPADMGG
 SFIGPTQDAVLALATELGIPPTPHRDGRNVIQWRGSARSYRGTI PKLSLTGLIDIGRLR
 WQFERIARGVPVAAAPWDARRARELDDVSLGEWLRLVRATSSSRNLMAIMTRVTWGCEPDD
 VSMLHAARYVRAAGGLDRLLDVKNGAQQDRVPGGTQQIAQAAAAQLGARVLLNAAVRRID
 RHGAGVTVTSDQGQAEAGFVIVAI PPAHRVAIEFDPPLPPEYQQLAHHWPOGRLSKAYAA
 YSTPFWRASGYSGQALSDEAPVFITFDVSPHADGPGILMGFVDARGFDSLPIEERRDAL
 RCFASLFGDEALDPLDYVDYRWGTEEFAPGGPTAAVPPGSWTKYGHWLREPVGPIHWAST
 ETADEWTGYFDGAVRSGQRAAAEVAALL*

MTSP33

MKGTKLAVVVGMTVAAVSLAAPAQADDYDAPFNNTIHRFGIYGPQDYNWLAKISCERLS
 RGVDGDAYKSATFLQRNLPRGTTQGOAFQFLGAAIDHYCPEHVGVLQRAGTR*

MTSP34

MKALVAVSAVAVVALLGVSSAQADPEADPGAGEANYGGPPSSPRLVDHTEWAQWGSLSLSL
 RVYPSQVGRASRRLGMAAADAAWAEVLALSPEADTAGMRAQFICHWQYAEIRQPGKPSW
 NLEPWRPVVDDSEMLASGCNPGSPSEESF*

MTSP35

MSGHRHKPTTSNVSVAKIAFTGAVLGGGGIAMAAQATAATDGEWDQVARCESGGNWSINT
 GNGYLGGLQFTQSTWAAHGGGEFAPSQALASREQQIAVGERVLATQGRGAWPVCGRGLSN
 ATPREVLPAASAMDAPLDAAAVNGEPAPLAPPPADPAPPVELAANDLPAPLGEPLPAAPA
 DPAPPADLAPPAPADVAPPVELAVNDLPAPLGEPLPAAPADPAPPADLAPPAPADLAPPA
 PADLAPPAPADLAPPVELAVNDLPAPLGEPLPAAPAEELAPPADLAPASADLAPPAPADLA
 PPAPAEELAPPAPADLAPPAVNEQTAPGDQPATAPGGPVGLATDLELPEPDPQPADAPPP
 GDVTEAPAETPQVSNIAYTKKLWQAIRAQDVCGNDAALDSLAQPYVIG*

MTSP36

MSGHRKKAMLALAAASLAATLAPNAVAAAEPSWNGQYLVTL SANAKTGTSMANRPEYPH
 KANYTFSSRCASDVCIATVVDAPPPKNEFI PRPIEYTWNGTQWVREISWQWDCLLPDGTI
 EYAPAKSITAYTPGQYGILTGVFHTDIASGTCKGNVDMPVSAKPIVG*

FIG. 1 (continued)MTSP37

MRYLIATAVLVAVVLVGWPAAGAPPSCAGLGGTVQAGQICHVHASGPKYMLDMTFPVDYP
DQQALTDYITQNRDGFVNVAQGSPLRDQPYQMDATSEQHSSGQPPQATRSVVLKFFQDLG
GAHPSTWYKAFNYNLATSQPITFTDLFVPGTTPLDSIYPIVQRELARQTGFGAAILPSTG
LDPAHYQNFAITDDSLIFYFAQGELLPSFVGACQAQVPRSAIPPLAI*

MTSP38

LKNARTTLIAAAIAGTLVTTSPAGIANADDAGLDPNAAAGPDAVGFDPNLPPAPDAAPVD
TPPAPEDAGFDPNLPPPLAPDFLSPPAEEAPPVPVAVSVNWDIAIAQCESGGNWSINTGNG
YYGGLRFTAGTWRANGSGSAAANASREEQIRVAENVLRSQGIRAWPVCGRG*

MTSP39

MSTIFDIRSLRLPKLSAKVVVVGGGLVVVLAVVAAAAGARLYRKLTTTTVVAYFSEALALY
PGDKVQIMGVRVGSIDKIEPAGDKMRVTLHYSNKYQVPATATASILNPSLVASRTIQLSP
PYTGGPVLQDGAVIDPIERTQVPVEWDQLRDSINGILRQLGPTERQPKGPFGLIESAADN
LAGKGRQLNETLNSLSQALTALNEGRGDFVAITRSLALFVSALYQNDQQFVALNENLAEF
TDWFTKSDHDLADTVERIDDLVLTGRKFVSDNRSVLAADVNNLADATTTLVQPEPRDGL
TALHVLPTYASNFNLYPLHSSLVGQFVFPNFANPIQLICSAIQAGSRLGYQESAECA
QYLAPVLDALKFNYPFGSNPFSSAATLPKEVAYSEERLRPPPGYKDTTVPGIFSRDTPF
SHGNHEPGWVAPGMQGMQVQFPTANMLTPESLAELLGGPDIAPPPPTNLPGPPNAYDE
SNPLPPPWPQPASLPAAGATGQPGPGQ*

MTSP40

MKRSMKSGSFAIGLAMMLAPMVAAPGLAAADPATRPVDYQQITDVVIARGLSQRGVPFWSW
AGGGISGPTRGTGTGINTVGFDASGLIQYAYAGAGLKLPRSSGQMYKVGQKVLPOQARKG
DLIFYGPEGTQSVALYLKGQMLEVGDVVQVSPVRTNGMTPYLVRLVLTGTOPTPVQQAPVQ
PAPVQQAPVQQAPVQQAPVQQAPVQQAPVQQAPVQQAPVQQAPVQQAPVQQAPVQQAPVQPPPGTARSR*

MTSP41

MFTRRFAASMVGTTTLTAATLGLAALGFAGTASASSTDEAFLAQLQADGITPPSAARA IKD
AHAVCDALDEGHSKAVIKAVAKATGLSAKGAKTFAVDAASAYCPQYVTSS*

MTSP42

MAAMWRRRPLSSALLSFGLLLGGLPLAAPPLAGATEEPGAGQTPGAPVVAPQQSWNSCRE
FIADTSEIRTARCATVSVVDYDQPGGTQAKLAVIRVPATGQRFGALLVNPGGPGASAVD
MVAAMAPAIADTDILRHFDLVGFDPRGVGHSTPALRCRTDAEFDAYRRDPMADYSPAGVT
HVEQVYRQLAQDCVDRMGFSFLANIGTASVARDMDMVRQALGDDQINYLGYSGTELGTA
YLERFGTHVRAMVLDGAIDPAVSPIEESI SQMAGFQTAFNDYAADCARS PACPLGTDSAQ
WVNRYHALVDPLVQKPGKTS DPRGLSYADATTGTINALYSPQRWKYLTSGLLGLQRGSDA
GDLLVLADDYDGRDADGHYSNDQAFNAVRCVDAPTPADPAAWVAADQIRIQVAPFLSYG
QFTGSAPRDL CALWPVPATSTPHPAAPAGAGKVVVVSTTHDPATPYQSGVDLARQLGAPL
ITFDGTQHTAVFDGNQCVDSAVMHYFLDGTLPPTSLRCAP*

FIG. 1 (continued)MTSP43

MKTGTATRRRLAVLIALALPGAALLAEPSATGASDPCAASEVARTVGSVAKSMGDY
LD SHPETNQVMTAVLQQQVGP GSVASLKAHFEANPKVASDLHALSQPLTDLSTRCSLPIS
GLQAI GLMQAVQGARR*

MTSP44

MSRLSSILRAGAAFLVLGIAAATFPQSAAADSTEDFPIPRRMIATTCDAEQYLA AVRDT S
PVYYQRYMIDFNNHANLQQATINKAHWFFSLSPAERRDYSEHFYNGDPLTF AWVNHMKIF
FNNKG VVAKGTEVCNGYPAGDMSVWNWA*

MTSP45

VTKRTITPMTSMGDLLGPEPILLPGDSDAEAE LLANESPSIVAAAHPSASVAWAVLAEGA
LADDKTVTAYAYARTGYHRGLDQLRRHGWKGFGVPYSHQPNRGFLRCVAALAAAAAIG
ETDEYGRCLDLLDDCDPAARPALGL*

MTSP46

VIIIPDINLLLYAVITGFPQHRRAHAWWQDTVNGHTRIGLTYPALFGFLRIATSARVLAAP
LPTADAIAYVREWLSQPNVDLLTAGPRHLDIALGLLDKLG TASHLT TDVQLAAYGIEYDA
EIHSSDTDFARFADLKWTDPLRE*

MTSP47

LTDPRHTVRIAVGATALGV SALGATLPACSAHSGPGSPPSAPSAPAAAATVMVEGHTHTIS
GVVECRTSPAVRTATPSESGTQTTRVNAHDDSASVTL SLSDSTPPDVNGFGISLKIGSVD
YQMPYQPVQSPTQVEATRQGSYTLTGTHAVIPGQTGMREL PFGVHVTC P*

FIG. 2

mtsp1

atgaatcgcatcgtgcagttcggagtttccgccgtggccgcggcgccgat
cggcatcggagccgggtcggggatcgccggcgccgttcgacggcgaggacg
aggtgaccggccccgacgccgaccgcgcgcgcgcgcgggtgcaggcg
gtcccgggcccacccgcccggagaagtgcgacccgagaccggcggaaggcgc
cgccgcctacggcgtgctggtcacccggcccgcggcaccctgtcgagg
tccacctggaccgggatttccgggttctggacaccgaaccggccgcagg
gacggcggttag

mtsp2

atgaggctgtcgttgaccgcattgagcgccgggtgtaggcgccgtggcaat
gtcgttgaccgtcggggccgggggtcgccctccgcagatcccgtggacgcgg
tcattaacaccacctgcaattacgggcaggtagtagctgcgctcaacgcg
acggatccgggggctgccgcacagttcaacgcctcacgggtggcgagtc
ctatttgcgcaatttccctcgccgcaccgccacctcagcgcgctgccatgg
ccgcgcaattgcaagctgtgccggggcgccacagtagacatcgcccttgtc
gagtcgggtgcccggctcctgcaacaactattaa

mtsp3

atgttcaccggcatcgctagccatgccggcgccctgggtgccgccttagt
ggtgctgatcggcgccgcaattctgcacgacggcccagcagcgccgacc
caaaccaagacgatcggtttctggcgctgctcgagaaaaaggaaatcccc
gccgtcgcaatgtgcctcgcgctcatcgacgcggcccacaaagtgtgcg
caaactcgatggcgccatgccgggtgaacgacatttgtggacgggttacga
acgatgcctacaacatagaccgggtcatgcgcctctaccctgtccgcctc
acgacgaccatgaccggatttatcagtgccggcagtgagatctactgcc
gaaccatcacagcaagatggcggttcgccatggccaatttcgagccgggat
cgaatgaaccgacgcacgcgttgccggcggtccacgcgcagcgcggtcaac
tcgggaagcgacctgcggggcggtgcgacatgaccatcatgtcgcc
gggatggcggggaaccgacgggtgcgagtgcttgccctcggtgctcgagcg
ttcgcgcgggggatcccctgataccgaatccgccgcgattccgggtaccg
ccgccggcgccgcagaccctgattccacccccgcggatcggtggcaccgcc
gccaccgcgaccagcgccgcgcaacagccgcgcgcgcgcgcgcgcgaggg
ttgagccgcctgctggtgttcgcagtcggggggcgctgcgggcagtggc
ggcgccggcagcggtggtggcgggcggtggtgacggaccggtagagccgtc
gcctgcacgacccatgccgcgggctttatcagggtcgcgccgtga

mtsp4

atgacgcggctgataccgggttgacgcgtcgctcgggctgatgctgacgtt
actgccgcgcccacctcggcgccgggagcaacaccgccaccacctgt
tcccggctgcagaggtcacccagctggagacgcacaccttccctcgattgc
caccccaacggcagctgcgacttcgtcgctggagcaaattcgcgacacc
cgacggcccgcagggctttccgcccgggctgtgggcgcgcgccaaccaccg
agatccgttcgacgaaccgggttgccctatctggacgcgcacgccaccagc
cagttcgaacgggtaataagggcgggcggtccgacgtgatcaccaccgt
ctacttcggcgagggtccgccggacaaataccagaccaccgggggtcatcg
actcgaccaattggtcgaccgggtcaaccgatgaccgacgtcaacgtcatc
gtgtgtacacacatgcaggtggtctacccgggggtcaacctcacctcgcc
cagcacctgcgcgcaagccaacttttcctag

FIG. 2 (continued)mtsp5

atggtttttaagaagtaggaaaagcacgctcggcggttgctcgtgtgcttagc
gctggtgctcgggtgggcccgtcaacggttgacagcagcagcgcgagccacc
gcggtccactgaacgcaatgggaagtcggccataccgtcgacggcgag
gagataaccaaacccggttgccggtcagtagaagacctcatggaaccgct
gtttccgcaggggaaccccgcgagcaacgctatccgccttgcccgcgct
cctacgacgcgagtttgcgagctctcctggcggcagctgcagcctacggat
ccgcgcactctgccccggatgctccggacgaccgcaagtacgacttcag
cgtgatcgacaacgcggttgaccaggctcgccgaccgcggcatgcggctga
cgctgcgggtgtacgcctacagctcgtgctgcaaggcttcctatccggac
ggcactaacatcgcgattcccgaactgggagcgcgctatcgccagcaccaa
caccagttatccagggccggcgaccgatccctcgaccgggggtggtgcagg
tggtgccgaatttcaacgattcgacctatcttaacgattttgcgagttg
ctcgccgcgcttggtcgccgctacgacggtgacgagcgccctcagcgtgt
cgagttctccgggtacggggacttcagcgaaaatcacgtcgcatacctgc
gcgacacgctcgggtgcgcgggtccgggcccggatgaaagcgtggcgacc
ctgggctattacagccagttccgtgatcagaacatcaccaccgcgtccat
caaacagctaatacgcggcgaacgtcagcgccctcccgcatacccaactgg
tgaccagtcccgcctaataccggaaatcgtgcgagaactgttcgcccagcag
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cgtcgacgcgcgcttgccggcctgggcccaggtccagcacttcgcactatg
tgacagaccaagacccgggtgggtgcgcgcgctgcggcagcggctggcaacg
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aagtgggtgcccgggtaccggctggtggattccaccggacaggtggttcg
gacgctgccggcagcgggtggacctgaagacgctggtctccgaccagcgcg
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cgcgcttgatctgtccggcttgcccgcggggccactacacgctgcggggcgc
gatcgactggcaacagcacaaaccgaacggctcccatgtggtgaactatc
cgcccatgctgtgtcccgcgacggccgcgacgattccgggttttatccc
gtcgccacgctcgacatcccacgcgacgcgcgacaccgcgggtcaacgcttc
gtag

mtsp6

atgagccgactcctagctttgctgtgcgctgcgggtatgcacggggtgcgt
tgctgtggttctcgcgccagtgagcctggccgctcgtcaaccggtggttcg
cgaactcggtcggcaatgccactcaggtggtttcggtggtgggaaccggc
gggttcgacggccaagatggatgtctaccaacgcaccgcgcgggctggca
gccgctcaagaccggtatcaccacccatcgggttcggcgggcatggcgc
cggaagccaagagcggatcaccggccactccgatgggggtttacagcctg
gactccgcttttggcaccgcgcgcaatcccgggtggcggggttgccgtatac
ccaagtccgacccaatcactggtggagtggcgacgacaatagccccacct
ttaactccatgcaggtctgtcagaagtcccagtgcccgttcagcacggcc
gacagcgagaacctgcaaatcccgcagtagaagcattcggtcgtgatggg
cgtcaacaaggccaaggtcccaggcaaaaggctccgcgttcttctttcaca
ccaccgacggcgggcccaccgcgggttggtgtggcgatcgacgatgccacg

FIG. 2 (continued)

ctggtgcagatcatccgttggtgcggcctggtgcggtgatcgcgatcgc
caagtaa

mtsp7

atgattcgcgaaactggtcaccaccgctgcgatcacgggtgccgcatcgg
tggggcgccagtgcggggcgagacccgcagcggttatgacggcgatgtgc
cggggatgaactatgacgcttcgctgggcgccccatgctccagctgggag
cgcttcatttttggacgaggccccctccggtcaggccgaagcctgtcattt
tccgcctcctaaccagttcccgccggccgaaaccggctactgggtgatct
cctaccgcgtatacggcggtccagcaggtcgggtgcgccgtgtccgaagccg
caggcggccgcgcagctctccggatgggttgccgatgctgtgtctgggagc
ccgtggatggcagccgggatggtttaccggggccgggttcttccctccgg
agccataa

mtsp8

atgggtgaattacggttggtgggcggtgtgctccgggtccttgtcgtggt
cggtgcggtgttcgatgtggcggtgctaaacgccggtgcggctagtgcg
acggcccgggtccagctgaagagccgattgggcatgtttgcctggacgcc
ccgagtgggagctggttcagcccgtggtgatcaaccctgcaatgggac
cgactttcagcgctggaatctcaccgatgaccggcaggtcgagagcgtgg
ccttccccggggaatgcgtgaatatcggaatgctttgtgggcgcgctg
cagccctgtgtgaactggatcagccagcactggactgtccagcccgaagg
cctggtcaagagtgatcttgatgcctgcctcacggttctcggcgggtccgg
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caacagtgggatagcgtgccgtaa

mtsp9

atgccggccatgaccgcccgttcgggtggtactcagcgtgctgctcggtgc
tcatcccgcgtgggcccaccgcaagcgaattgatccagctgacagcggatt
tcgggtatcaaggagacgacgttgcggtgcgctgaccgcgatggtcgggt
gcccgggatctggtccggtccgcggacggctaccggctctcggtatcggtt
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gctcgtaccggggccgcactgcgaacctgcatgcaccacaagcgtttcgg
tgaattgcgggaaggggtgtggatgcggccggacaatctcgacctcgact
tggagtccgacgttgcgggcccgggttaggatgctgacggcccgcgacgag
gccccgcgcgacttggccgggcagctgtgggatctgtcggggtggaccga
ggccggccaccgggtgtcgcggcagatggcagcggccaccgacatgcccg
ggcgatttgtggtggctgcggcgatggtgcgccacctgctcaccgatccg
atgttgcgcgctgaactgttgcccgcgactggccggggcgccgggttacg
ggcggcgtaccacgacttcgccactgcaatggcgaaacgacgcgatgcaa
ctcaactcctggaggtgacatga

mtsp10

gtgccggccggcgctcggtaacgcacatccggtagcggttttagatatgacgtc
cgtgcgcacagtgccaaagcgccgtgcgcgtggtgacgtttgccggagccg

FIG. 2 (continued)

cgctcagcgggggtcatcccggcgattgcccgcgcgatccggtcgggcat
caggtgacctacaccgtcacgaccaccagcgacctgatggccaacattcg
gtacatgagcgccgatccgcccagcatggcggtttcaatgccgattcat
cgaagtacatgattaccttgacactccgatcgctggcggtcagccgctg
gtctataccgccacgctggcaaaccgagccagtgggcgatcgtcaccgc
cagcggcggtcgtcggtcaatccggagttccactgcgagattgttgtag
acggccaggtggtggtgcgaggacggcggcagcggcggtgcagtgctcg
actcgccctggttaa

mtsp11

atgacgaccagcaaaatcgccaccgccttcaagaccgccaccttcgcgct
ggccgcgggtgccgttgactgggattggccagccccgcccagcgcagcgg
cgggcacatgtatggcgaccggcagccgcgccaagtactggcgccag
cagacatacgacgactgcgtcctgatgtcgcccgcgacgtgatcggtca
agtgaaccggcagggagccttccgagcgcgccatcatcaaagtggcccagt
cgacacccagcgtcgtgcacccccgggtccatctacacaaagccggccgac
gccgagcaccggaactcggaatgggtaccagcgtggccgacataccgac
gctgctggcgcattacggcgctcgacgcggttatcaccgacgaggaccacg
ccacagccaccggagtcgccaccggcatggccgcccctcgagcagttatctg
ggcagcgggcacgcggtgatcgtcagcatcaacgccgagatgatctgggg
ccagcccgtcgaggaaaccgacagtgccgggaaccgcggtctgaccacg
ccgtgggtgggtgaccgggtgcgataccgaaaacggcattgttcacctcaac
gacagcggtaacccccacggggccgcgacgagcagatcccgatggaaacctt
cgtcgaggcggtggggccaccagccacgacttcatggccgctcaccacctga

mtsp12

atgggagtcattgcccgcgttgctcggtgtcgccgcgtgcgggtttgtccct
ggccgctgctggccgcgcgcccaccgcggggcgcggaacccaccggcgcg
tgccccgatgacatccagcggcagcggaccggtcatcggcgacgggtgac
gccgcgctgcgacagcggatctcacagcagctgtttagcttcggagatcc
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cgggtgttgggctgccaaacagaacacagccggctcgggggcccggcttcgg
ggcgcgccctaccggcgaaaccgacgggcaatggggaggcgcgatgctgg
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aagtccggttggcgcaaggccacggcgggcacgcgacttcgatgtgcaa
caacgggttggaacctaccgcgcgttcgcccacaccgcgcggcggaagagg
gctatttcgtcttgctggccggcagggcctcggacttctgcagtgcgccc
aacgcgaactaccgaaccaccgcgagctcatggccgggctag

mtsp13

atgcgcttgaagccagccccatctcctgctgcagcctttgccgtcgccgg
cctgatcctcgaggctgggcccggatccgtgggcctcgccggcgccgatc
cggagccggcaccgacaccgaagacggcaattgatagcgacggcacctat
gggtggggattgacatcgctcccggcagctacagctccgcgggacccgt
cggcgacggcacctgctattggaagcggatgggtaaccccgatggcgcg
tcacgataacgcactcagcaagaaaccacaggtagtgcagattgagccg
accgacaaggcggttcaagacgcacggctgccaaacctggcagaacacggg
cagcgaaggcgctgcccctgccggagtctcctggacctgaagcggggggccc

FIG. 2 (continued)

aactacaaaatcagctcggcatcctcaacggcttactcggaccgactgga
gggcgagtgccctcagccctaa

mtsp14

atgatcacaaacctccgacgcgcgaaccgcgatggcagccgcggcctagg
ggctgctctcgggctgggcatcctgctgggtccgacgggtggacgcccac
tcgccaacgggttcgatgtcggaagtcatgatgtcggaattgccgggttg
cctatccctccgattatccattacggggcgattgcctatgccccagcgg
cgcgtcgggcaaagcgtggcaccagcgcacaccggcgcgagcagagcaag
tcgcactagaaaagtgcggtgacaagacttgcaaagtggtagtcgcttc
accaggtgcggcgcggtgcctacaacggctcgaaataccaaggcggaac
cggactcacgcgcgcgcggcagaagacgacgccgtgaaccgactcgaag
gcgggcgggatcgtcaactgggcgtgcaactaa

mtsp15

gtgacgggtgctgctcgacgccaacgtgctgatcgcatgtggtggctgcgga
gcatgtgcatcatgatgccgcagcggactggctcatggcgtccgacaccg
gattfgcgacctgcccgatgacacaaggaagcctgggtcgattcctgggtg
cgctcgggacagtcgcgcggcgggcgtcgggatgtcgtcagtcgggtcca
gtgcacgagccgcccacgaattctggcccgatgcactctcttcgcccgggtg
tcgaggtcgctgggtgtgggtggggcaccggcaggtgaccgatgcctacctt
gcccagctcgcgcgaagccacgacgggcagttggcgacgctcgacagcgg
cttagcacacctgcacggcgacgtcgcggtactcattccaacgaccacct
ga

mtsp16

gtgcagcgccaatcattgatgccccagcagacccttgccgcccggcggtttt
cgtgggtgcgctgctatgcggtgtcgtgacggcgggcggtgccaccacacg
cacgcgcgcgacgtgggtcgccatctgggtcaacgtgacggtagcggcgggc
tacaacttcgccaacgcccagcgcgcggttgagttacggacatggcctctg
cgagaaggtgtctcggggccgcaccttacgcacagatcatcgccgacgtca
aggctgatttcgacacccgcgaccaataaccaggcctcgtatctgctcagc
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cgcagtcgacaatcggcgctcgggctga

mtsp17

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tgggtcgctggcggtcgcgctcggctcgggtgggcgcccagacatcctctcgc
tcgacgtggtcgagcgcggcaacggctatgcgatcgacgacctgggtggc
gaactgcccccgaggagcgatgcccagacacgctgatcactgctgccgaggc
gctgaacggcggtccgggtagacagcgtccgcccgcacaccggcctgttgg
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tgcccgagcccaggtgcgcgcgagacccggggccaattcggcgccctgg
ctgccgatcgagcgggcgcggcgtggacggcgggcgccgactgggtgcc
gcaagcctggcgcgacatggataccaccatggtcgcggctccattgggtg
acacgcacaccgcgggtgggtgctgggcaggccaggcccggaatttcgcccc

FIG. 2 (continued)

tccgaggtggcgcggttgggttatctagccggcatcgtggcgacgatgct
gcgctga

mtsp18

atgcctgacggggagcagagccagccaccggcccaagaagatgcggaaga
cgactcgcgggcccgacgcccggaggccgcccggccgaacccaaatcat
cagccggtccgatgttctcgacctacggtatcgctcgacactactcggc
gtgctatcggtcgcccgggtcgtgctgggtgcgatgatctggtcgcgaca
ccgcatgactccggcgagcgtacctacctgacccgggtcatgctgaccg
ccgctgaatggacggcgtgctgatcaacatgaacgcccgaacatcgat
gccagcctgcagcgactgcacgacggaacgggtcggtaactcaacaccga
cttcgacgctgtcgtgcagccctaccggcaggtgggtggagaagtgcgga
cgcacagcagcggcaggatcgaggcggtagcgatcgatacgggtgcaccgc
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gccaccgtttgccactcgcaccgactcgggtgctgctggtcgcgacgtcgg
tcagtgagaacgcccggcgccaaaccccagaccgtgcactggaacttgcgg
ctcgatgtctccgatgtggacggcaagctgatgatctccgggtggagtc
gattcgatga

mtsp19

atgaagatggtgaaatcgatcgccgcaggtctgaccgcccggcgtgcaat
cggcgccgctgcggccgggtgtgacttcgatcatggctggcgcccggtcg
tataccagatgcagccggtcgtcttcggcgcgccactgccgttggaccg
gcatccgcccctgacgtcccagccgcccagttgaccagcctgctcaa
cagcctcgccgatcccaacgtgtcgtttgcgaacaagggcagtcgtggtcg
agggcgccatcgggggacccgagggcgcgcatcgccgaccacaagctgaag
aaggccgcccagcaggggatctgccgctgtcgttcagcgtgacgaacat
ccagccggcgccgcccgggttcggccaccgcccagcgtttccgtctcgggtc
cgaagctctcgtcgccggtcacgcagaacgtcacgttcgtgaatcaaggg
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gaactga

mtsp20

atgaacctacggcgccatcagaccctgacgctgcgactgctggcgccatc
cgcgggcatttctcagcgcccgcccttcgccgcccagcacaggcaaacc
ccgtcgacgacgcgttcacgcgcgctgaacaatgccggcgctcaactac
ggcgatccggtcgacgcccgaagcgctgggtcagtcgctcgtcccgatcct
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gcgcccgaaggcatgtcccaggacatggcgcaaacccttcaccagtatcgcg
atttcgatgtactgcccctcgggtgatggcagacgtcgccagcggcaacct
gccggccctgccagacatgccggggctgcccggtcctag

mtsp21

atgagagttgtgtcaacgctactcagcattccggtgatgatcggttggc
gggtccggcccacgcggggcccagcggtgacgacgcgggtctttcttgctt
cgtagagcgggcaggcattacctacagccaccggatcaagccatagca
tcgggcaaggccgtatgcgcgttagtcgaaagcggcgaatcgggtcttca
ggctcgtcaacgagctgcggacccgcaatcccgggttttcgatggacgggt
gttgcaagttcgtcgcgatctccgcgcgatgtctattgccccaccagatc
actaaaaccagcgtcagcgcgaaatag

FIG. 2 (continued)mtsp22

atggccccgcacgcttgcggtgcgcgcatcggcgggactcgtcgcgggat
ggcaatggccgcgatcacgctcgacactggggcccgccgaaaccggtg
agcaattccccggggatgggggtgtttctcgagggaactgacattgcgcca
ggcacctaccgcacggaggggcggtcgaatccccttattttgggtgttcgg
cagggtgtccgagctctcaacctgctcatgggtcgacacacagcgcacccg
aggtagcaatgagaacattgtcgacaccaacacctctatggggcccgatg
tcagtgggtgatcccgccgaccgtggcagccttcagacgcataactgcaa
gctttggatgcggatctcatag

mtsp23

atgttatcgccggttatcgccctcgcatatcgacagcgttcaccactgcagt
cggcgcccgccgcatcggaacttgccgtcgccaccgcccggcaccgcccggc
ccaacaccaaaagacgaagccttcattgctcagatggagtcatttggcgct
accttctcctcaccgcaggtggccaccagcaagcccagctgggtctgcaa
gaagctggccagcggcgaaaccggcaccgagatcgccgaggaggtcctca
gccaaccaaacctgaccactaagcaggcagcctacttcgtcgctcgacgca
accaaggcctactgcccgcgaatacgccagccagctcacctag

mtsp24

atgacgacgatgattactcttcggcgacgggttcgcgggtggccgctcgccgg
cgtcgccactgcgcgcgcgacgaccgtcacctgggtcccgcaccagcaa
atgcccgcgatgtctatggcgcaattgcctactccggcaacgggtcgtgg
ggccgatcgtgggactaccaaacccggggcggtgcccgaagccaccgcccgt
caagtctgtgtggtactccgactgcaaggtgctcaccagtttcaccgcct
gcggcgcgctcgccgccaacgatagggcataaccaggaggaggttggacc
accttggccgcgcgcatgaaggacgcccctgaccaagctcggcggcggtta
catcgacacctgggcctgcaactaa

mtsp25

atgacaccgggtttgcttactactgcgggtgctggccgaccacgtgacag
gtgcccaggatcgtatgcacgggtgttcacgaaaccgcccgttgtcgca
ccatgtttgtcgcggtgttgggtctgtccaccatcagctcgaaagccgac
gacatcgattgggacgccatcgcgcaatgcgaatccggcggcaattgggc
ggccaacaccggtaacgggttatacgggtggtctgcagatcagccaggcga
cgtgggattccaacgggtggtgtcggggtcgccggcgccgagtcgccag
caacagatcgagggtcgagacaacattatgaaaacccaaggcccgggtgc
gtggccgaaatgtagttctttagtcaggagagacgcaccgctggggtcgc
tcacccacatcctgacgttcctcgcgggccgagactggaggttgttcgggg
agcaggggacgattga

mtsp26

gtgcaaggagccggttgctgggtctgggtgtttctggccgctcctgggtgatttt
cgccatcatcgtgggtggccaagtgggtggcgctgatcccgcaggcggagg
ccgcggtgatcgagcgggtgggtcgctatagtcgtacgggtcagtgggcag
ttgacgctgttgggtgcccgttcacgcaccgctccgggctcgggtggacct
gcgcgagcgggtgggtgtcggttcgcgcgcaaccgggtgatcaccgaggaca
acttgacgctgaacatcgacaccgtcgtctacttcagggtgaccggttcgg

FIG. 2 (continued)

caggcgggcgggtgtacgagatcagcaattacatcgctcgggggtcgaacagct
caccaccaccaccctgcgcaacgttgtcggcgggatgacgctggagcaga
cgttgacctcgctgaccagatcaacgcccagctgcgcggcggttctcgat
gaggcgaccggccgctgggggtctgcgggtggcgcggggtggagctgcgcag
catcgatccgcccgcgtcgattcaggcgctcgatggaaaagcagatgaagg
ccgaccgggagaagcgagcgatgattctgaccgccaaggtaccggggag
gcggcgataaaaacaggccgaggggcaaaagcaggcgagatcctggccgc
cgagggcgccaagcgagcccgatcttggtgctgaggccgatcggcagt
ctcggtgctgcgcgctcagggtgagcgcgcccgccctacctgcaggcg
caagggcaggccaaggccatcgagaagacgttcgcccgcgatcaaggctgg
ccggcccaccccggagatgctggcctaccaataacctgcagacgctgccgg
agatggcgcggtggggacgccaacaaggtatgggtgggtgccagcgacttc
aacgcccgcactgcaggggttcaccaggctgctgggcaagccgggtgagga
cgggggtgttccgggttcgagccgtccccggtcgaagaccagcccaagcacg
cggccgacggtgacgacgcccagggtcgcccggctgggttctccaccgatacc
gaccgctcgatcgctcgggcgggtggctacagccgaggcgatagcccgcaa
gccggtcgaggggttcgctggggacgccccccaggttgactcaatag

mtsp27

ttgcagacggcgcacaggcgctttgcccggcgattcgcgggccgtgctttt
ggccgttgtgtgcctacctgcgaacaccgcggcagccgacgacaagctac
cgctgggcgggtgggtgcgggcatcgctcgtaacggggacaccatgtgcacc
ctaaccaccatcgggccatgacaagaacgggtgacctcatcggttctacttc
cgcccactgtggggggcccgggcgcgagatcgccgctgaggggtgccgaga
acgcggggcccggtaggcatcatggtcgccggcaacgacggccctggactac
gcggtgatcaagttcgacccggccaaggtgaccccgggtggccgtcttcaa
cgggtttgcgatcaacggcattggcccggacccgctcggttcggccagatcg
cctgcaagcagggccgcaccaccggtaactcgctgcgggggttacctggggg
ccaggggagagtccgggcacccttgtgatgcaggtctgcggcggaaccggg
cgactccgggtgcgcgggtgaccgtcgacaatctgctggtcgggatgatcc
acggcgcatcagcgacaatctgccgagttgcatcaccaaatacatcccg
ctgcacaccccggcggtgggtgatgtcgatcaacgcccagctggccgacat
caacgccaaagaaccggccggggcgcgggattcgctcccggtaaccggcctga

mtsp28

atgcttatgcctgagatggatcgctcgccgaatgatgatgatggcggggtt
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cccggccggcgccgcgggtggtcgacaccggcgcccgcgcgcgggt
gcggcaaccgggtgggttttgttccacgacgagttcgacggggccggccgg
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tcaagaacccgggtgggtttgaccggccccagtttttggggcagtaccgc
gacagtgcacagaacgtgttctcgacggcaactccaatctcgctgctgcg
cgctacccgagagggcaacaggtatttcgggtggcctggtccacggccctgt
ggcggggtggcatcgggaccacctgggaggccccggatcaagttcaactgc
ctgggtccgggcatgtggcccgcctgggtggttgtccaatgacgatcctgg
tcgcagcggcgaaatcgacctgatcgagtgggtatggcaacgggacttggc
cgtcgggaaccaccgtgcacgccaaccggacggcaccgcatcagagacc
tgcccgatcggtgtggacgggtggttggcacaactggcgcgctcacgtggaa
tccgagcggcatgtacttctggctggattacgcccagcgcatcgagccct
acttctcggttccggcgaccgggaatcgaagacctcaacgagcccatccgc

FIG. 2 (continued)

gagtggccgttcaacgaccccggtacaaggtgtttccggtgttgaaacct
tgccggttggcgggttctggtggcggcgatcccgcgacgggttcctatccac
aggagatgctcgtcgactgggtgcgcgctctttaa

mtsp29

gtgcaccgtcgaacggccctgaagctcccgtgctgctggcggcaggcac
ggtgctgggccaagcgccgccccgcccgaagaaccaggccgggtggt
cgccgacgcgcacatcgctggtatcaagcgcacggctggctcgtcggt
gcaaactacatcacctcgaacgccatcaaccagctcgagatgttccagcc
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ggcgcgataccacatcaaaccgctctttgtcctgttcgactcctgctggg
accgctccccagaccgggtcggcagcggggcgccaagggtgggggtgcac
aactccgggtgggtgcaaagtcgggtgctgaacgcctcgatgaccgccc
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mtsp30

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cagacgttttccacctccaatgacgacgcggccaagtttgacccccgactt
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ttccctaa

FIG. 2 (continued)mtsp31

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tgcccggtcgacatgctggagatggtgcccactccctgggggctgggtgcgc
tccgggggtcgcgccggatcaccccaagatcaagtcgatcagcaagcaatt
cgaaaagacggccgaggacccccgcttccgcttcttcggcaatgtggtcg
tcggcgaacacgtccagcccgcgagctctccgagcgctacgacgccgtg
atctacgcggtcggcgcgagtcgatcgcatggtgaacatccccgggtga
ggacctgcccgggagtatcgccgccgtcgatttcgtcggctgggtacaacg
cacatccacacttcgagcaggtatcacccgatctgtcgggcgcccgggccc
gtagttatcggcaatggaaacgtcgcgctagacgtggcacggattctgct
cacccgatcccgacgtgttggcacgcaccgatatcgccgatcacgctttgg
aatcgctacgcccacgcggtatccaggaggtgggtgatcgtcgggcgcccga
gggtccgctgcaggccgcgcttcaccacgttggagttgcgcgagctggccga
cctcgacgggggttgacgtgggtgatcgatccggcggagctggacggcatta
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gatcgggaccaacaagaaggacgcccgaagacaccgtcgacaccttgatca
agaatcttggaacgccaaggaggggcgccgagtgcaagagctttccggaa
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gagagccgcacgggctccccgggtcaagttggccagcctggccgagctg
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mtsp32

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gatcgcccaggcggccgcgcccgaactcggcgacgcgctcctgctcaacg
ccgcggtgctgcgatcgaccggcagggagcgggtgtgacggtcacgtcc
gatcagggtcaggccgaggccgggttcgctcatcgctcgccattccaccggc
ccatcgcggtggccatcgagttcgatcccccgctgccgcccgaatatcagc
agctcgcccaccattggccgcaggggccgggtgagcaaggcctaagcggcc
tattcgacgcggttctggcgggccagcgggtattccggccaggcgctgtc
cgatgaggcgccggtgttcacacctcgacgtcagtcgcacgcggcagc

FIG. 2 (continued)

ggccaggcat tctgatggggttcgtcgatgctcgcggttcgactcgcta
 cccatcgaagagcgccgcgcatgcat tgcgctgctttgcgctcgctgtt
 cggcgacgaagcgctcgaccccccttgattatgttgactatcgttggggta
 cagaggaattcgcgccgggtgggtccgaccgcggtaccgcccgggtcg
 tggacgaaatacgggtcactgggttacgtgagccgggtcggtccgattcactg
 ggcgagcactgagaccgcggaacgaatggaccgggtatttcgacggcgccg
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mtsp33

atgaagggaacaaagctggctgttgtcgtcgccatgacgggtggctgccgt
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 acacgatccatcgcttcgggatctacggcccgcaggactacaacgcttgg
 cttgccaaagatcagctgcgaacgggtgagcagaggcgttgacggcgatgc
 gtacaagtccggccactttcctgcaacgcaacctgccgcgcggaaccacc
 agggccaagcggtttcagttcctggggcgccgcgatcgatcactactgccct
 gagcatgtgggcgtcctgcaacggggctggcaccgcgttaa

mtsp34

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 tgtatcttccgcccagctgatcccgaggcggtatcccgcgcgagggtgagg
 ccaactatgggtggccccccaagttccccacgtcttgtcgatcacaccgaa
 tggggcgagtggggaagtctgccagcctccgggtctaccggtcccaagt
 tgggcgtacagcctcccgccgctcgggatggccgctgccgacgcggcct
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 gcgagttcatctgccactggcagtagccgaaatcagacaaccggaac
 accagctggaacctcgagccgtggcgccgggtcgctcgacgactcggaga
 tggtggcttccggctgcaatccgggcagccctgaagagtcgttttag

mtsp35

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 ctacggcgaccgcgccaccgacggggaatgggatcaggtggcccgtgc
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 gcccgacccgctgggtgaacccctcccggcagctcccgccgacccggcac
 caccgcccagctggcaccacccgcgcccgccgacgtcgcgccaccgctg
 gaacttgccgtaaacgacctgcccgcaccgctgggtgaacccctcccggc
 agctcccgccgacccggcaccacccgcccgcgacctggcaccacccgcccgc
 ccgacctggcgccaccgcccgcgcccgcgacctggcgccaccgcccgcgc
 gacctggcaccacccgctggaacttgccgtaaacgacctgcccgcgcccgt
 ggggtgaacccctcccggcagctcccgccgaactggcgccaccgcccgcgac
 tggcaccgcccgtccgcccagctggcgccaccgcccgcgcccgcgacccggcg
 ccaccgcccggccggaactggcgccaccgcccgcgcccgcgacctggcacc
 acccgctcggtgaacgagcaaacccgcccggggcgatcagcccggccacag

FIG. 2 (continued)

ctccaggcgggcccggttggccttgccaccgatttggaaactccccgagccc
gaccccccaaccagctgaacgcaccgcccggcgacgtcaccgaggcgcc
cgccgaaacgccccaaagtctcgaacatcgctatacgaagaagctgtggc
aggcgattcggggcccaggacgtctgcggcaacgatgcgctggactcgctc
gcacagccgtacgtcatcggtga

mtsp36

atgtccggacaccgcaagaaggcaatgctcgccttggcggctgcgtcgct
ggcagcgacgctggccccgaacgcagtcgcggccgcagaaccgtcgtgga
acgggagctacctcgtgacgttgtctgccaacgcgaaaaccggcaccagc
atggcggccaaccggccagagtatccacacaaagcgaactacacgttcag
ctcgcgctgcgcgtccgatgtctgcattgccaccgtggctgcacgctccgc
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actcaatgggtacgggagatcagctggcaatgggactgcctgctacccga
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gtcagtagcgaatcctcaccggcgctctttcataccgatatcgccagcggc
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ctga

mtsp37

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tgcaggccggccagatctgccatgtgcacgcctcgggcccctaagtacatg
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ccaacgggtgggtcgggggtccgcggccaacgcgagccgggaggagcagatc
cgggtgggtgagaacgtgctgcgttcgcagggtatccgcgcctggccgggt
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mtsp39

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aaaggtagtggtcgtcggcggggttgggtgggtggtcttggcggtcgtggccg

FIG. 2 (continued)

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gcgtattttctctgaggcgctcgcgctgtaccaggagacaaagtccagat
catgggtgtgcgggtcgggttctatcgacaagatcgagccggccggcgaca
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gctaccgcgctcgatcctcaacccccagcctgggtggcctcgcgacccatcca
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gcgctgaacgagggccggggagacttcgttgcgatcacgcgaagcctggc
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ttggccgacacgggtggaacggatcgacgacgttctcggcaccgtccgaaa
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mtsp41

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cgctactttgggcctggccgcactcggttcgcccgggaccgcccagcgcaa
gctcgaccgacgaagcgttccctcgcgagctgcaggcggacgggatcact

FIG. 2 (continued)

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cgaccgggtctgagcgcgaagggcgccaagacgttcgccgttgacgccgcg
tcggcctactgcccgcagtagctgacctcgagctaa

mtsp42

atggcgggccatgtggcgccgcagacgcgttgagctcggcgctgctgtcctt
cgggttgctgctcggcggaactgcccctagcagcgcggcggttgggcggcg
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mtsp43

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caaccaggtgatgaccgcgggtcttgcagcagcaggtagggccgggggtcgg
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gccgatcagcggcctgcaggcgatcgggtttgatgcaggcggtgcaggggcg
ccccccggtag

FIG. 2 (continued)mtsp44

atgtctcggctgagttccatcctgcgtgccggcgcggcatttctgggttct
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mtsp45

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mtsp46

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mtsp47

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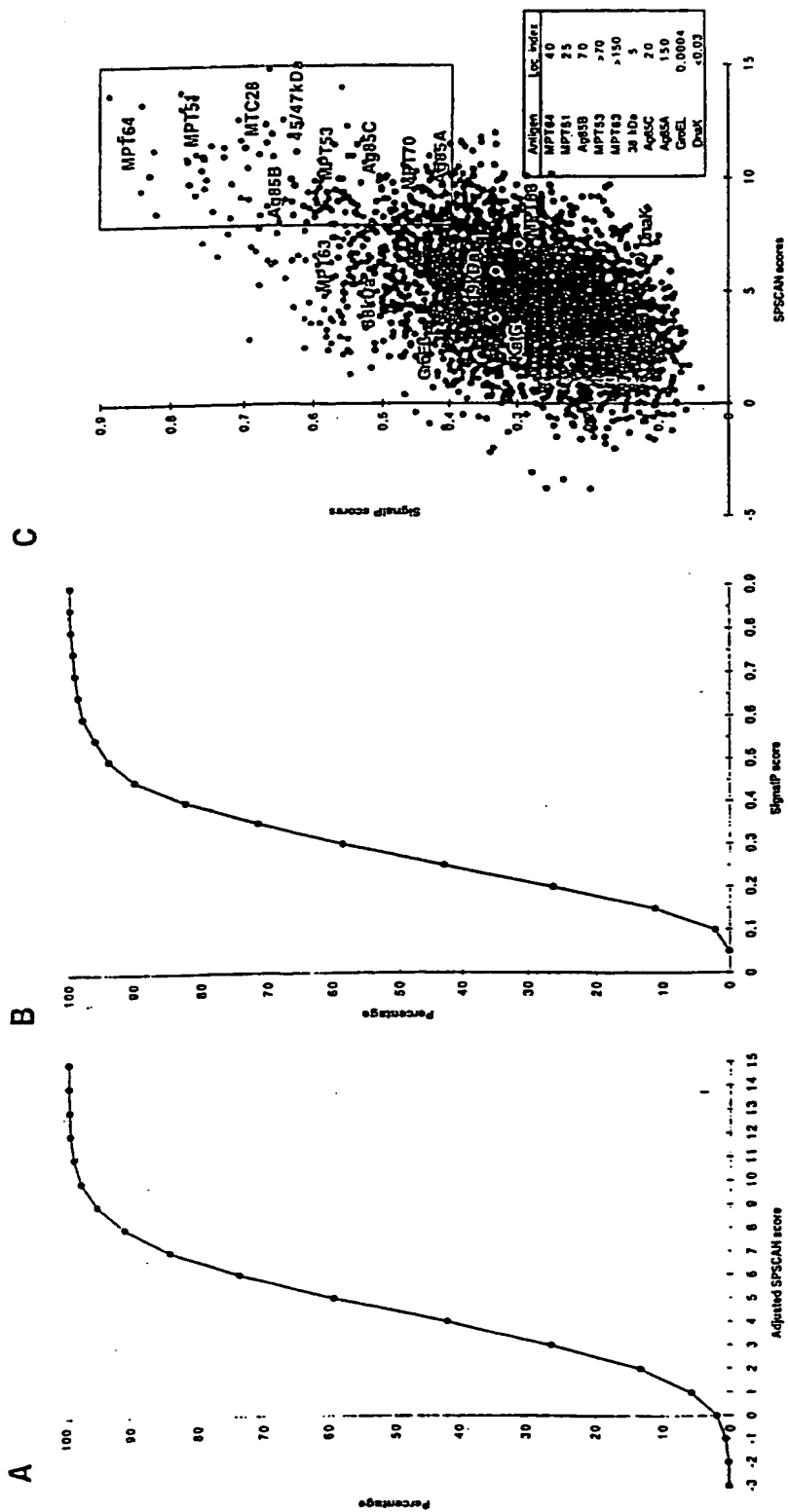
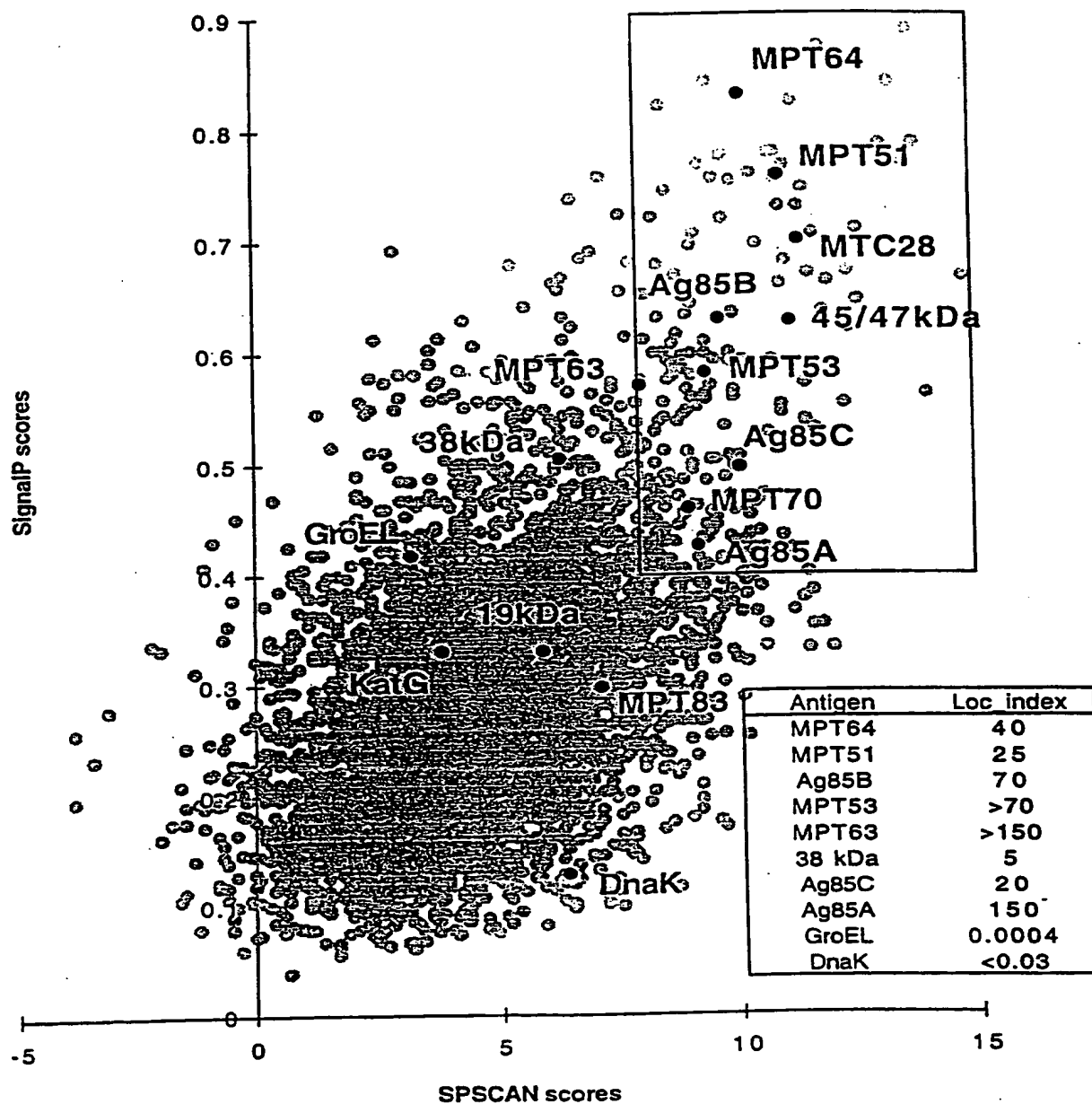


FIGURE 3

BEST AVAILABLE COPY

FIGURE 4